

KNX manual
Tactile sensors
iON 102 KNX, iON 104 KNX



iON 102 KNX - 4969232



iON 104 KNX - 4969234

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1 Functional characteristics

- Individual buttons, freely adjustable
- Dimming and blind controls with one and two button operation possible
- Functions: switching, dimming, blinds, scenes, values, sequence, colour control
- Multi-coloured status LEDs with individually adjustable colour, brightness and behaviour (static, flashing, pulsing)
- Brightness of status LEDs adjustable via object or automatically controlled
- Integrated temperature sensor
- Labelling field for individual button labelling
Clear cover for label included in scope of supply
- Bus coupling unit integrated

2 Proper use

The tactile sensors iON 102 KNX and iON 104 KNX can be used in residential buildings, meeting rooms and offices, as well as in commercial buildings.

They have 2 or 4 buttons, which can be used to switch and dim the light, raise and lower blinds, or trigger and save scenes. Furthermore, it is possible to measure the temperature, control colours and display the status.

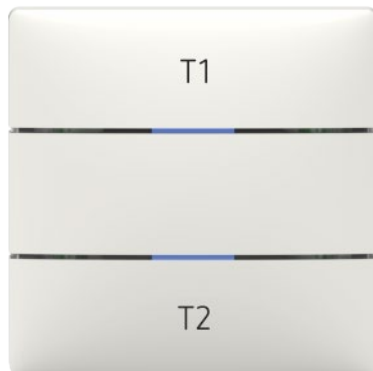
3 Technical data

KNX operating voltage	Bus voltage
Connection type	Bus connection: KNX bus terminal
Power input	12.5 mA
Ambient temperature	- 5 °C ... + 45 °C
Type of installation	Flush-mounted installation
Temperature measurement range	0 °C ... + 65 °C +-3%
Protection rating	IP 20 in accordance with EN 60529
Protection class	III

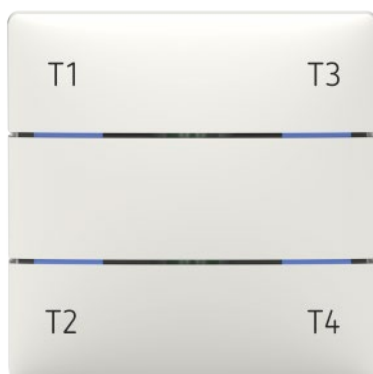
4 Operation

The tactile sensors iON 102 KNX and iON 104 KNX have 2 or 4 buttons. You can assign various functions to the individual buttons via the ETS application, such as switching the light on/off and dimming; raising and lowering blinds, triggering and saving scenes etc., and you assign different colours to the LEDs.

iON 102 KNX



iON 104 KNX




5 The "iON 104" application programme

5.1 Selection in the product database

Manufacturer	Theben AG
Product family	Button
Product type	iON
Programme names	iON 102, iON 104

Number of communication objects	Max. 58
Number of group addresses	255
Number of associations	255

 The ETS database can be found on our website: www.theben.de/en/downloads_en

5.2 Overview of communication objects

5.2.1 General information

No.	Object name	Function	Length	R	W	C	T	DPT
1	<i>Device LEDs</i>	<i>Reduced</i>	1 bit	-	W	C	-	1.001
		<i>Brightness</i>	1 byte	-	W	C	-	5.001
2	<i>Block LEDs</i>	<i>Block = 1</i>	1 bit	-	W	C	-	1.001
		<i>Block = 0</i>	1 bit	-	W	C	-	1.003
3	<i>Temperature</i>	<i>Actual value</i>	2 bytes	R	-	C	T	9.001
4	<i>In operation message</i>	<i>Send</i>	1 bit	R	-	C	T	1.001
5	<i>Alarm</i>	<i>Input</i>	1 bit	-	W	C	-	1.005
6	<i>Buttons</i>	<i>Block = 1</i>	1 bit	-	W	C	-	1.001
		<i>Block = 0</i>	1 bit	-	W	C	-	1.003

5.2.2 Button function

No.	Object name	Function	Length	R	W	C	T	DPT
10	Button T1.1	Switching	1 bit	R	W	C	T	1.001
		Priority	2 bit	R	W	C	T	2.001
		Send value	1 byte	R	W	C	T	5.010
		Send percentage value	1 byte	R	W	C	T	5.001
		2 bytes DPT 9.x	2 bytes	R	W	C	T	9.001
		4 bytes DPT 14.x	4 bytes	R	W	C	T	14.014
		HVAC operating mode	1 byte	R	W	C	T	20.102
		Call up scene	1 byte	R	-	C	T	17.001
		Call up/save scene	1 byte	R	-	C	T	18.001
		Send colour temperature	2 bytes	R	-	C	T	7.600
		RGB value	3 bytes	R	-	C	T	232.600
		RGBW value	6 bytes	R	-	C	T	251.600
		RGB(W) red	1 byte	R	-	C	T	5.001
		HSV(W) colour hue	1 byte	R	-	C	T	5.003
		XY value	6 bytes	R	-	C	T	242.600
		X colour value	2 bytes	R	-	C	T	7.001
11	Button T1.1	RGB(W) green	1 byte	R	-	C	T	5.001
		HSV(W) saturation	1 byte	R	-	C	T	5.001
		Y colour value	2 bytes	R	-	C	T	7.001
12	Button T1.1	XY brightness	1 byte	R	-	C	T	5.001
		RGB(W) blue	1 byte	R	-	C	T	5.001
		HSV(W) brightness	1 byte	R	-	C	T	5.001
13	Button T1.1	White level	1 byte	R	-	C	T	5.001
14	Button T1.2	Switching	1 bit	R	W	C	T	1.001
		Priority	2 bit	R	W	C	T	2.001
		Send value	1 byte	R	W	C	T	5.010
		Send percentage value	1 byte	R	W	C	T	5.001
		2 bytes DPT 9.x	2 bytes	R	W	C	T	9.001
		4 bytes DPT 14.x	4 bytes	R	W	C	T	14.014
		HVAC operating mode	1 byte	R	W	C	T	20.102
		Call up scene	1 byte	R	-	C	T	17.001
		Call up/save scene	1 byte	R	-	C	T	18.001
		Send colour temperature	2 bytes	R	-	C	T	7.600
		RGB value	3 bytes	R	-	C	T	232.600
		RGBW value	6 bytes	R	-	C	T	251.600
		RGB(W) red	1 byte	R	-	C	T	5.001
		HSV(W) colour hue	1 byte	R	-	C	T	5.003
		XY value	6 bytes	R	-	C	T	242.600
		X colour value	2 bytes	R	-	C	T	7.001
15	Button T1.2	RGB(W) green	1 byte	R	-	C	T	5.001
		HSV(W) saturation	1 byte	R	-	C	T	5.001
		Y colour value	2 bytes	R	-	C	T	7.001
16	Button T1.2	XY brightness	1 byte	R	-	C	T	5.001
		RGB(W) blue	1 byte	R	-	C	T	5.001
		HSV(W) brightness	1 byte	R	-	C	T	5.001

No.	Object name	Function	Length	R	W	C	T	DPT		
17	Button T1.2	White level	1 byte	R	-	C	T	5.001		
18	Button T1.3	Switching	1 bit	R	W	C	T	1.001		
		Priority	2 bit	R	W	C	T	2.001		
		Send value	1 byte	R	W	C	T	5.010		
		Send percentage value	1 byte	R	W	C	T	5.001		
		2 bytes DPT 9.x	2 bytes	R	W	C	T	9.001		
		4 bytes DPT 14.x	4 bytes	R	W	C	T	14.014		
		HVAC operating mode	1 byte	R	W	C	T	20.102		
		Call up scene	1 byte	R	-	C	T	17.001		
		Call up/save scene	1 byte	R	-	C	T	18.001		
		Send colour temperature	2 bytes	R	-	C	T	7.600		
		RGB value	3 bytes	R	-	C	T	232.600		
		RGBW value	6 bytes	R	-	C	T	251.600		
		RGB(W) red	1 byte	R	-	C	T	5.001		
		HSV(W) colour hue	1 byte	R	-	C	T	5.003		
		XY value	6 bytes	R	-	C	T	242.600		
		19	Button T1.3	X colour value	2 bytes	R	-	C	T	7.001
				RGB(W) green	1 byte	R	-	C	T	5.001
HSV(W) saturation	1 byte			R	-	C	T	5.001		
20	Button T1.3	Y colour value	2 bytes	R	-	C	T	7.001		
		XY brightness	1 byte	R	-	C	T	5.001		
		RGB(W) blue	1 byte	R	-	C	T	5.001		
21	Button T1.3	HSV(W) brightness	1 byte	R	-	C	T	5.001		
		White level	1 byte	R	-	C	T	5.001		
30 - 81	Buttons T2 to T4 (details: see button 1)									

5.2.3 Dimming function

No.	Object name	Function	Length	R	W	C	T	DPT
10	<i>Button T1</i>	<i>Switching</i>	1 bit	R	W	C	T	1.001
11	<i>Button T1</i>	<i>Brighter/darker</i>	4 bit	R	-	C	T	3.007
		<i>Brighter</i>	4 bit	R	-	C	T	3.007
		<i>Darker</i>	4 bit	R	-	C	T	3.007
12	<i>Button T1.1</i>	<i>Switching</i>	1 bit	R	W	C	T	1.001
		<i>Priority</i>	2 bit	R	W	C	T	2.001
		<i>Send percentage value</i>	1 byte	R	W	C	T	5.001
		<i>Send value</i>	1 byte	R	W	C	T	5.010
		<i>2-byte 9.x</i>	2 bytes	R	W	C	T	9.xxx
		<i>4-byte 14.x</i>	4 bytes	R	W	C	T	14.xxx
30-72	Buttons T2 to T4 (details: see button 1)							

5.2.4 Blinds function

No.	Object name	Function	Length	R	W	C	T	DPT
10	<i>Button T1</i>	<i>Step / stop</i>	1 bit	-	-	C	T	1.010
11	<i>Button T1</i>	<i>UP/DOWN</i>	1 bit	-	W	C	T	1.008
		<i>UP</i>	1 bit	-	-	C	T	1.008
		<i>DOWN</i>	1 bit	-	-	C	T	1.008
12	<i>Button T1.1</i>	<i>Switching</i>	1 bit	-	W	C	T	1.001
		<i>Priority</i>	2 bit	-	-	C	T	2.001
		<i>Send percentage value</i>	1 byte	-	-	C	T	5.001
		<i>Height %¹</i>	1 byte	-	-	C	T	5.001
		<i>Send value</i>	1 byte	-	-	C	T	5.010
		<i>2-byte 9.x</i>	2 bytes	-	-	C	T	9.xxx
		<i>4-byte 14.x</i>	4 bytes	-	-	C	T	14.xxx
13	<i>Button T1.2</i>	<i>Slat %²</i>	1 byte	-	-	C	T	5.001
30-73	Buttons T2 to T4 (details: see button 1)							

¹ Upon double-click with object type = *height % + slat %*

² Upon double-click with object type = *height % + slat %*

5.2.5 Sequence function

No.	Object name	Function	Length	R	W	C	T	DPT
10	Button T1.1	Switching	1 bit	R	W	C	T	1.001
		Priority	2 bit	R	W	C	T	2.001
		Send value	1 byte	R	W	C	T	5.010
		Send percentage value	1 byte	R	W	C	T	5.001
		2 bytes DPT 9.x	2 bytes	R	W	C	T	9.001
		4 bytes DPT 14.x	4 bytes	R	W	C	T	14.014
		HVAC operating mode	1 byte	R	W	C	T	20.102
		Call up scene	1 byte	R	-	C	T	17.001
		Send colour temperature	2 bytes	R	-	C	T	7.600
		RGB value	3 bytes	R	-	C	T	232.600
		RGBW value	6 bytes	R	-	C	T	251.600
		XY value	6 bytes	R	-	C	T	242.600
11	Button T1.2	Switching	1 bit	R	W	C	T	1.001
		Priority	2 bit	R	W	C	T	2.001
		Send value	1 byte	R	W	C	T	5.010
		Send percentage value	1 byte	R	W	C	T	5.001
		2 bytes DPT 9.x	2 bytes	R	W	C	T	9.001
		4 bytes DPT 14.x	4 bytes	R	W	C	T	14.014
		HVAC operating mode	1 byte	R	W	C	T	20.102
		Call up scene	1 byte	R	-	C	T	17.001
		Send colour temperature	2 bytes	R	-	C	T	7.600
		RGB value	3 bytes	R	-	C	T	232.600
		RGBW value	6 bytes	R	-	C	T	251.600
		XY value	6 bytes	R	-	C	T	242.600
12	Button T1.3	Switching	1 bit	R	W	C	T	1.001
		Priority	2 bit	R	W	C	T	2.001
		Send value	1 byte	R	W	C	T	5.010
		Send percentage value	1 byte	R	W	C	T	5.001
		2 bytes DPT 9.x	2 bytes	R	W	C	T	9.001
		4 bytes DPT 14.x	4 bytes	R	W	C	T	14.014
		HVAC operating mode	1 byte	R	W	C	T	20.102
		Call up scene	1 byte	R	-	C	T	17.001
		Send colour temperature	2 bytes	R	-	C	T	7.600
		RGB value	3 bytes	R	-	C	T	232.600
		RGBW value	6 bytes	R	-	C	T	251.600
		XY value	6 bytes	R	-	C	T	242.600
13	Button T1.4	Switching	1 bit	R	W	C	T	1.001
		Priority	2 bit	R	W	C	T	2.001
		Send value	1 byte	R	W	C	T	5.010
		Send percentage value	1 byte	R	W	C	T	5.001
		2 bytes DPT 9.x	2 bytes	R	W	C	T	9.001
		4 bytes DPT 14.x	4 bytes	R	W	C	T	14.014
		HVAC operating mode	1 byte	R	W	C	T	20.102
		Call up scene	1 byte	R	-	C	T	17.001
		Send colour temperature	2 bytes	R	-	C	T	7.600
		RGB value	3 bytes	R	-	C	T	232.600
		RGBW value	6 bytes	R	-	C	T	251.600

No.	Object name	Function	Length	R	W	C	T	DPT
		<i>XY value</i>	6 bytes	R	-	C	T	242.600
30-73	Buttons T2 to T4 (details: see button 1)							

5.2.6 Button LEDs³

No.	Object name	Function	Length	R	W	C	T	DPT
23	<i>LED T1</i>	<i>External status [ON/OFF]</i>	1 bit	-	W	C	-	1.001
		<i>External status [%]</i>	1 byte	-	W	C	-	5.001
		<i>External status [0-255]</i>	1 byte	-	W	C	-	5.010
		<i>External status [DPT9.x]</i>	2 bytes	-	W	C	-	9.xxx
43-83	Buttons T2 to T4 (details: see button 1)							

³ only available if *Control LED externally via object = yes* (parameter page **LED**)

5.3 Description of communication objects

5.3.1 General objects

Object 1: Device LEDs

Only available with the setting *Reduce brightness of LEDs = via bus*.

Object type	Function
Via switch object	1 = Reduce brightness 0 = normal brightness
Via percentage value	0..100% = maximum LED brightness

Object 2: Block LEDs

All LEDs are blocked via this object.

The polarity of the block telegram can be configured on the **General/Settings** parameter page.

Object 3: Temperature - actual value

Sends the measured room temperature.

Object 4: Send in operation message

Sends cyclically⁴ a 1 as signal indicating that the device is present and in operation.

Object 5: Alarm

1 bit receive object.

Reception of an external alarm telegram is indicated by flashing or pulsing of all LEDs.

LED colour and time intervals can be set on the **Alarm** parameter page.

Object 6: Block buttons

All buttons are blocked via this object.

The direction of action of the block object is defined on the **Settings** parameter page.

⁴ See *Send operating message* parameter.

5.3.2 Button function

First telegram of the button

Object 10: Button T1.1

12 telegram formats can be set:

Switching ON/OFF, priority, send percentage value, send value, 2 byte DPT 9.x, 4 byte DPT 14.x.
HVAC modes, scenes (call up or send), colour temperature, colours in RGB, RGBW and XY format.

Object 11: Button T1.1

For colour control with separate objects.

Depending on format: HSV(W) saturation, RGB(W) green, Y colour value.

Object 12: Button T1.1

For colour control with separate objects.

Depending on format: XY brightness, RGB(W) blue, HSV(W) brightness.

Object 13: Button T1.1

For colour control with separate objects.

White level (RGBW format).

Second telegram of the button

Object 14: Button T1.2

Second output object of the button.

12 telegram formats can be set:

Switching ON/OFF, priority, send percentage value, send value, 2 byte DPT 9.x, 4 byte DPT 14.x.
HVAC modes, scenes (call up or send), colour temperature, colours in RGB, RGBW and XY format.

Object 15: Button T1.2

For colour control with separate objects.

Depending on format: HSV(W) saturation, RGB(W) green, Y colour value.

Object 16: Button T1.2

For colour control with separate objects.

Depending on format: XY brightness, RGB(W) blue, HSV(W) brightness.

Object 17: Button T1.2

For colour control with separate objects.

White level (RGBW format).

Third telegram of the button

Object 18: Button T1.3

Third output object of the button.

12 telegram formats can be set:

Switching ON/OFF, priority, send percentage value, send value, 2 byte DPT 9.x, 4 byte DPT 14.x.

HVAC modes, scenes (call up or send), colour temperature, colours in RGB, RGBW and XY format.

Object 19: Button T1.3

For colour control with separate objects.

Depending on format: HSV(W) saturation, RGB(W) green, Y colour value.

Object 20: Button T1.3

For colour control with separate objects.

Depending on format: XY brightness, RGB(W) blue, HSV(W) brightness.

Object 21: Button T1.3

For colour control with separate objects.

White level (RGBW format).

Objects 30-81

Objects for buttons T2-T4.

5.3.3 Dimming function

Object 10: Button T1.1 switching

Switches the dimmer on and off.

Object 11: Button T1.1 brighter, darker, brighter/darker

4-bit dimming commands.

Object 12: Button T1.1 – switching, priority, percentage value...

Output object for the additional function with double-click.

6 telegram formats can be set:

Switching ON/OFF, priority, send percentage value, send value, 2 byte DPT 9.x,
4 byte DPT 14.x.

Objects 30-72

Objects for buttons T2-T4.

5.3.4 Blinds function

Object 10: Button T1 step/stop

Sends step/stop commands to the blind actuator.

Object 11: Button T1 UP/DOWN, UP, DOWN

Sends operating commands to the blind actuator.

Object 12: Button T1.1 – switching, priority, percentage value, height %

Output object for the additional function with double-click.

7 telegram formats can be set:

Switching ON/OFF, priority, send percentage value, send value, 2 byte DPT 9.x,
4 byte DPT 14.x, height %..

Object 13: Button T1.1 – slat %

Slat telegram for positioning the blinds upon double-click
(with *object type = height + slat*).

Objects 30-73

Objects for buttons T2-T4.

5.3.5 Sequence function

Object 10: "Button T1.1"

First output object of the button.

12 telegram formats can be set:

Switching ON/OFF, priority, send percentage value, send value, 2 byte DPT 9.x, 4 byte DPT 14.x.

HVAC modes, scenes (call up or send), colour temperature, colours in RGB, RGBW and XY format.

Object 11: "Button T1.2"

Second output object of the button.

12 telegram formats can be set:

Switching ON/OFF, priority, send percentage value, send value, 2 byte DPT 9.x, 4 byte DPT 14.x.

HVAC modes, scenes (call up or send), colour temperature, colours⁵ in RGB, RGBW and XY format.

Object 12: "Button T1.3"

Third output object of the button.

12 telegram formats can be set:

Switching ON/OFF, priority, send percentage value, send value, 2 byte DPT 9.x, 4 byte DPT 14.x.

HVAC modes, scenes (call up or send), colour temperature, colours in RGB, RGBW and XY format.

Object 13: "Button T1.4"

Fourth output object of the button.

12 telegram formats can be set:

Switching ON/OFF, priority, send percentage value, send value, 2 byte DPT 9.x, 4 byte DPT 14.x.

HVAC modes, scenes (call up or send), colour temperature, colours in RGB, RGBW and XY format.

5.3.6 Function - Control LED externally via object

Object 23 „LED T1“

Input object.

4 telegram formats can be set: 1 bit, 1 byte 0..255, 1 byte 0..100%, 2 bytes DPT9.x

The LED is switched on and off either via the states 1 and 0 or via a configurable threshold. See parameter page **LED**

⁵ Here, the colours are output as 3 or 6 byte object.

5.4 Parameter pages overview


Parameter page	Description
General information	
<i>Settings</i>	Basic settings: device type, operating properties, etc.
<i>LEDs</i>	Global settings for all LEDs.
<i>Temperature</i>	Settings for the internal temperature sensor.
<i>Alarm</i>	LED behaviour on reception of an alarm telegram.
Button T1..T4	
<i>Configuration options</i>	Button function and number of telegrams.
<i>Button object 1</i>	Object type, transmission behaviour, etc. can be set for each object individually.
<i>Button object 2</i>	
<i>Button object 3</i>	
<i>Dimming</i>	Type of control.
<i>Blinds</i>	Type of control.
<i>Double-click</i>	Additional telegrams for <i>Dimming</i> and <i>Blinds</i> .
<i>Sequence</i>	Sequence characteristics. Activate time and block functions.
<i>Object types</i>	Format of the 4 sequence objects.
<i>Step 1</i>	Set transmission behaviour, telegrams and time.
<i>Step 2</i>	
<i>Step 3</i>	
<i>Step 4</i>	

5.5 General parameters

5.5.1 Settings

These settings apply to all buttons.

Designation	Values	Description
<i>Device type</i>	<i>iON 102 KNX</i> <i>iON 104 KNX</i>	2-channel device 4-channel device
<i>Long button push starting at</i>	300 ms , 400 ms 500 ms, 600 ms 700 ms, 800 ms 900 ms, 1 s	Serves to clearly differentiate between long and short button push. If the button is pressed for at least as long as the set time, then a long button push will be registered.
<i>Time for double-click</i>	300 ms , 400 ms 500 ms, 600 ms 700 ms, 800 ms 900 ms, 1 s	Serves to differentiate between a double-click and 2 single clicks. Time period in which the second click must begin, in order to recognise a double-click.
<i>Activate alarm function</i>	no yes	Do not use. See below, parameter page Alarm .
<i>Send operating message</i>	<i>Never</i> <i>every 2 min</i> <i>every 3 min</i> ... every 30 min <i>every 45 min</i> <i>every 60 min</i>	The device has the option of sending an operating message to the bus to indicate whether it is still functional or present (anti-theft protection).
<i>Polarity blocking telegrams</i>	Block with 1 <i>Block with 0</i>	0 = cancel block 1 = block 0 = block 1 = cancel block

 No telegram is sent when the block is cancelled.

5.5.2 LEDs

These settings apply to all LEDs.

Designation	Values	Description
<i>Reduce brightness of the LEDs</i>	<i>never</i>	The LEDs should: Shine at maximum brightness at all times.
	<i>always</i>	Always shine at the specified brightness
	<i>at darkness</i>	Shine at the specified brightness when it is dark in the room.
	<i>via bus</i>	Be able to be reduced or dimmed via bus telegrams.
<i>Object type</i>	<i>via switch object</i>	Brightness reducible via switch telegram.
	<i>via percentage value</i>	The brightness of the LEDs can be set as desired via dimming telegrams.
<i>Value for reduced brightness</i>	0-100 % Default = 30%	Reduced LED brightness, if not specified via the bus.
<i>Flashing – duty cycle</i>	100..2000 ms Default = 500 ms	Desired duty cycle (1000 ms = 1 second).
<i>Flashing – switch-off duration</i>	100..2000 ms Default = 500 ms	Desired switch-off duration.
<i>Pulsing – interval</i>	1000 – 5000 ms Default = 2000 ms	Distance between 2 light pulses.

5.5.3 Temperature

Designation	Values	Description
<i>Temperature calibration</i> (x 0.1 K)	-64...63 (Default = 0)	Correction value for temperature measurement if sent temperature deviates from the actual ambient temperature. Example: temperature = 20 °C sent temperature = 21 °C Correction value = -10 (i.e. -10 x 0.1 °C)
<i>Send temperature in the event of change of</i>	<i>Not due to a change</i> <i>of 0.5 K</i> <i>of 1.0 K</i> <i>of 1.5 K</i> <i>of 2.0 K</i> <i>of 2.5 K</i>	only send cyclically (if enabled) Send if the value has changed for example by 0.5 °C or 1 °C since it was last sent.
<i>Send temperature cyclically</i>	<i>do not send cyclically</i> <i>every min</i> <i>every 2 min</i> <i>every 3 min</i> <i>every 5 min</i> <i>every 10 min</i> <i>every 15 min</i> <i>every 20 min</i> <i>every 30 min</i> <i>every 45 min</i> <i>every 60 min</i>	How often should the current temperature be sent again?

5.5.4 Alarm

The device LEDs can be used to signal an alarm condition.

When an alarm object is received, all LEDs of the device flash or pulse at the specified time interval.

Designation	Values	Description
<i>Trigger alarm function at</i>	Object value = 1 <i>Object value = 0</i>	Polarity of the alarm object
<i>Colour of LEDs on alarm</i>	<i>Green</i> Yellow <i>Orange</i> <i>Red</i> <i>Cyan</i> <i>Blue</i> <i>Purple</i> <i>Pink</i> <i>White</i>	Select colour.
<i>Behaviour on alarm active</i>	Flashing <i>Pulsing</i>	Behaviour on reception of an alarm telegram.
<i>Flashing – duty cycle</i>	<i>100..2000 ms</i> Default = 500 ms	Desired duty cycle (1000 ms = 1 second).
<i>Flashing – switch-off duration</i>	<i>100..2000 ms</i> Default = 500 ms	Desired switch-off duration.
<i>Pulsing – interval</i>	<i>1000 – 5000 ms</i> Default = 2000 ms	Distance between 2 light pulses.

5.6 Button-related parameters⁶

5.6.1 Button function

5.6.1.1 Configuration options

Designation	Values	Description
<i>Function</i>	Button.. <i>Dimming..</i> <i>Blinds..</i> <i>Sequence..</i>	Classical button applications such as switching, sending value, etc.
<i>How many telegrams are to be sent</i>	one telegram <i>two telegrams</i> <i>three telegrams</i>	Each button has 3 output objects and can thus send up to 3 different telegrams.

⁶ Button 1 to 2 or 4.

5.6.1.2 Parameter pages button object 1, 2, 3

Each of the 3 objects can be configured individually on its own parameter page.


Designation	Values	Description
<i>Object type</i>	Switching (1 bit) <i>Priority (2 bit)</i> <i>Value 0-255 (1 byte)</i> <i>Percentage value (1 byte)</i> <i>Floating-point number DPT 9.x (2 byte)</i> <i>Floating-point number DPT 14.x (4 byte)</i> <i>HVAC</i> <i>Scenes</i> <i>Colour temperature DPT 7.600 (2 byte)</i> <i>RGB colour</i> <i>RGBW colour</i> <i>XY colour</i>	Telegram type for this object.
<i>Scene function⁷</i>	Calling up scenes	Calling up scenes
	<i>Call up and save scenes</i>	Short button push: Call up scene. Long button push: Save scene. No double-click function.
<i>Output⁸</i>		Colour model and allocation of colour telegrams.
	<i>With RGB colour</i>	
	RGB 3 byte DPT232.600	1 RGB object
	<i>RGB separate objects</i>	3 objects: red, green, blue.
	<i>HSV separate objects</i>	3 objects: Colour value (hue), colour saturation (saturation), bright value (value)
	<i>With RGBW colour</i>	
	RGBW 6 byte DPT251.600	1 RGBW object
	<i>RGBW separate objects</i>	4 objects: red, green, blue, white level (white).
	<i>HSVW separate objects</i>	4 objects: Colour value (hue), colour saturation (saturation), bright value (value), white level (white).
	<i>With XY colour</i>	
XY 6 byte DPT242.600 <i>XY separate objects DPT7.001</i>	1 XY object. 3 objects: X value, Y value, brightness.	

⁷ Only with *object type = scenes*

⁸ Only for RGB, RGBW and XY colours.

Designation	Values	Description	
Send after short operation	do not send Send telegram	Respond to short button push?	
Telegram	<i>With object type = switching 1 bit</i>		
	ON OFF INVERT	Send switch-on command Send switch-off command Invert current state (ON-OFF-ON etc.)	
	<i>With object type = priority 2 bit</i>		
	inactive ON OFF	Function	Value
		Priority inactive (no control)	0 (00 _{bin})
		Priority ON (control: enable, on)	3 (11 _{bin})
		Priority OFF (control: disable, off)	2 (10 _{bin})
	<i>With object type = value 0-255</i>		
	0-255	Any value between 0 and 255 can be sent.	
	<i>With object type = percentage value 1 byte</i>		
	0-100 %	Any percentage value between 0 and 100% can be sent.	
	<i>With object type = 2 byte floating-point number</i>		
	-670760...670760 Default: 0	Any value between -670760 and 670760 can be sent.	
	<i>With object type = 4 byte floating-point number</i>		
	-1E+38.. 1E+38 Default: 0	Any value between -1E+38 and 1E+38 can be sent. Input format: The ETS only allows the input as a decimal without power. Example: 15234825.123456	
	<i>With object type = HVAC</i>		
	Auto Comfort Standby Temperature reduction at night Frost/heat protection	HVAC operating mode.	
<i>With object type = scenes</i>			
1-64	Scene number for call-up or save telegram.		
<i>With object type = colour temperature</i>			
1000-10000 K	DPT 7.600 (2 bytes) Colour temperature.		
<i>With object type = RGB colour</i>			

Designation	Values	Description
	<i>RGB (HSV)</i> ⁹ colour value	The colour can be selected directly via the Color Picker. The colour value is additionally displayed as a 6 byte hexadecimal value.
	<i>With object type = RGBW colour</i>	
	<i>RGBW (HSVW)</i> ¹⁰ colour value	The colour can be selected directly via the Color Picker. The colour value is additionally displayed as a 6 byte hexadecimal value.
	<i>White level</i>	The white level is entered separately.
	<i>With object type = XY colour</i>	
	<i>X colour value 0-1</i>	Input of XY components
	<i>Y colour value 0-1</i>	
	<i>Brightness 0-100%</i>	The brightness is entered separately.
<i>Send after long operation</i> ¹¹	do not send <i>Send telegram</i>	Respond to long button push?
<i>Telegram</i>	See above: Same object type as with short operation.	
<i>Send after double-click</i> ¹²	do not send <i>Send telegram</i>	Respond to double-click?
<i>Telegram</i>	See above: Same object type as with short operation.	
<i>Response when the block is set</i>	Ignore block	The block function is ineffective with this telegram.
	<i>Block</i>	The button does not send any telegrams.

 If a channel is blocked, no telegrams will be sent cyclically.

⁹ See parameter *Output*.

¹⁰ See parameter *Output*.

¹¹ With *object type = scenes* and *scene function = call up and save scene*:
Short button press: Call up scene. Long button push: Save scene.

¹² With *object type = scenes* and *scene function = call up and save scene*: No double-click function.

5.6.2 Dimming function


5.6.2.1 Configuration options parameter page

Designation	Values	Description
<i>Button function</i>	<i>Button..</i> <i>Dimming..</i> <i>Blinds..</i> <i>Sequence..</i>	The input controls a dimming actuator,
<i>Double-click additional function</i>	no yes	No double-click function The double-click parameter page is shown.

5.6.2.2 Dimming parameter page

Designation	Values	Description
<i>Response to "long" / "short"</i>		The input distinguishes between a long and a short button push, and can thus carry out 2 functions.
	<i>One button operation</i>	The dimmer is operated with a single button. Short button push = ON/OFF Long button push = brighter/darker release = stop
	<i>brighter / ON</i>	With the other variants, the dimmer is operated using 2 buttons (rocker). Short button push = ON Long button push = brighter Release = stop
	<i>brighter / INVERT</i>	Short button push = ON / OFF Long button push = brighter Release = stop
	<i>darker / OFF</i>	Short button push = OFF Long button push = darker Release = stop
	<i>darker / INVERT</i>	Short button push = ON / OFF Long button push = darker Release = stop

Designation	Values	Description
<i>Increment for dimming</i>	<p>100%</p> <p>50%</p> <p>25%</p> <p>12.5%</p> <p>6%</p> <p>3%</p> <p>1.5%</p>	<p>With a long button push, the dimming value is:</p> <p>Increased (or decreased) until the button is released.</p> <p>Increased by the selected value (or reduced)</p>
<i>Response when the block is set¹³</i>	<p>Ignore block</p> <p><i>Block</i></p>	<p>The block function is ineffective with this telegram.</p> <p>The button does not send any telegrams.</p>

 No telegram is sent when the block is cancelled.

¹³ Also applies to the double-click function

5.6.2.3 Double-click parameter page


Designation	Values	Description	
<i>Object type</i>	Switching (1 bit) Priority (2 bit) Value 0-255 Percentage value (1 byte) 2 byte floating-point number DPT 9.x 4 byte floating-point number DPT 14.x	Telegram type for this object.	
<i>Telegram</i>	<i>With object type = switching 1 bit</i>		
	ON OFF INVERT	Send switch-on command Send switch-off command Invert current state (ON-OFF-ON etc.)	
	<i>With object type = priority 2 bit</i>		
	inactive ON OFF	Function	Value
		Priority inactive (no control)	0 (00 _{bin})
		Priority ON (control: enable, on)	3 (11 _{bin})
		Priority OFF (control: disable, off)	2 (10 _{bin})
	<i>With object type = value 0-255</i>		
	0-255	Any value between 0 and 255 can be sent.	
	<i>With object type = percentage value</i> <i>1 byte</i>		
	0-100 %	Any percentage value between 0 and 100% can be sent.	
	<i>With object type = 2 byte floating-point number</i>		
	-670760...670760 Default: 0	Any value between -670760 and 670760 can be sent.	
<i>With object type = 4 byte floating-point number</i>			
-1E+38.. 1E+38 Default: 0	Any value between -1E+38 and 1E+38 can be sent. Input format: The ETS only allows the input as a decimal without power. Example: 15234825.123456		

5.6.3 Blinds function

Designation	Values	Description
<i>Activate channel</i>	<i>no</i> <i>yes</i>	Use input?
<i>Button function</i>	<i>Switch..</i> <i>Button..</i> <i>Dimming..</i> <i>Blinds..</i> <i>Sequence..</i> <i>LED output..</i>	The input controls a blind actuator.
<i>Double-click additional function</i>	<i>no</i> <i>yes</i>	No double-click function The double-click parameter page is shown.

5.6.3.1 Blinds parameter page

Designation	Values	Description
<i>Operation</i>	<i>One button operation</i>	The input distinguishes between a long and a short button push, and can thus carry out 2 functions. The blinds are operated with a single button. Short button push = step. Long button push = move.
	<i>DOWN</i>	Short button push = step. Long button push = lower.
	<i>UP</i>	Short button push = step. Long button push = raise.
<i>Movement is stopped by</i>	<i>Releasing the button</i> <i>Short operation</i>	How is the stop command to be triggered?
<i>Response when the block is set¹⁴</i>	<i>Ignore block</i>	The block function is ineffective with this telegram.
	<i>Block</i>	The button does not send any telegrams.

 No telegram is sent when the block is cancelled.

¹⁴ Also applies to the double-click function

5.6.3.2 Double-click parameter page

Designation	Values	Description	
<i>Object type</i>	Switching (1 bit) Priority (2 bit) Value 0-255 Percentage value (1 byte) 2 byte floating-point number DPT 9.x 4 byte floating-point number DPT 14.x Height % + slat %	Telegram type for this object.	
<i>Telegram</i>	With object type = switching 1 bit		
	ON	Send switch-on command	
	OFF	Send switch-off command	
	INVERT	Invert current state (ON-OFF-ON etc.)	
	With object type = priority 2 bit		
	inactive	Function	Value
		Priority inactive (no control)	0 (00 _{bin})
		Priority ON (control: enable, on)	3 (11 _{bin})
	ON	Priority OFF (control: disable, off)	2 (10 _{bin})
	OFF		
	With object type = value 0-255		
	0-255	Any value between 0 and 255 can be sent.	
	With object type = percentage value		
	1 byte		
0-100 %	Any percentage value between 0 and 100% can be sent.		
With object type = 2 byte floating-point number			
-670760...670760 Default: 0	Any value between -670760 and 670760 can be sent.		
With object type = 4 byte floating-point number			
-1E+38.. 1E+38 Default: 0	Any value between -1E+38 and 1E+38 can be sent. Input format: The ETS 4 only allows the input as a decimal without power. Example: 15234825.123456		
With object type = height % + slat %			
Height	Upon double-click 2 telegrams are sent simultaneously: Required blind height		
Slat	Required slat position.		

5.6.4 Sequence function

Designation	Values	Description
<i>Button function</i>	<i>Switch..</i> <i>Button..</i> <i>Dimming..</i> <i>Blinds..</i> <i>Sequence..</i> <i>LED output..</i>	The input starts a telegram sequence.

5.6.4.1 Sequence parameter page


The sequence consists of 4 steps, which can be executed one after the other either by button push or time-controlled.

The sequence has a total of 4 objects.

At each step, all 4 objects can send a new telegram each.

Designation	Values	Description
<i>Sequence details</i>	<i>Step 1-2-3-4-1-2-3-4</i> <i>Step 1-2-3-4-3-2-1</i>	In which order should the steps be executed?
<i>Advancing the sequence</i>	<i>via button</i> <i>time-controlled</i>	The change to the next step is exclusively triggered by a button push. Once triggered, the sequence is automatically executed. The interval between 2 steps can be individually set for each step.
<i>Restart sequence automatically</i>	<i>no</i> <i>yes</i>	The sequence is only executed once. Once started, the sequence is repeated an unlimited number of times and can, depending on the configuration, be stopped with a double-click or a long button push.
<i>On long button push</i>	<i>No function</i> <i>set to step 1</i> <i>End sequence</i>	Long button push will be ignored. Reset sequence to the beginning. End time-controlled sequence.
<i>Long button push starting at</i>	<i>300 ms, 400 ms</i> <i>500 ms, 600 ms</i> <i>700 ms, 800 ms</i> <i>900 ms, 1 s</i>	Serves to clearly differentiate between long and short button push. If the button is pressed for at least as long as the set time, then a long button push will be registered.

Designation	Values	Description
<i>On double-click</i>	No function	Double-click is ignored.
	<i>set to step 1</i>	Reset sequence to the beginning.
	<i>End sequence</i>	End time-controlled sequence.
<i>Response when the block is set</i>	Ignore block	The block function is ineffective.
	<i>Set to step 1 and stop time</i>	The sequence counter is reset to step 1 and the sequence is stopped. No telegram is sent.

 No telegram is sent when the block is cancelled.

5.6.4.2 Object types parameter page

The sequence has a total of 4 objects.

At each step, all 4 objects can send a new telegram each.

Designation	Values	Description
<i>Object 1</i>	Switching (1 bit) Priority (2 bit) Value 0-255 (1 byte) Percentage value (1 byte) Floating-point number DPT 9.x (2 byte) Floating-point number DPT 14.x (4 byte) HVAC Scenes Colour temperature DPT 7.600 (2 byte) RGB colour RGBW colour XY colour	Telegram type for this object.
<i>Output</i>	RGB 3 byte DPT232.600 RGBW 6 byte DPT251.600 XY 6 byte DPT242.600	Fixed setting for the colour telegrams, depending on the colour scheme.
<i>Object 2</i>	See object 1	
<i>Output</i>	See above	
<i>Object 3</i>	See object 1	
<i>Output</i>	See above	
<i>Object 4</i>	See object 1	
<i>Output</i>	See above	

5.6.4.3 Step 1, 2, 3, 4 parameter pages

This parameter page can be configured individually for each step.

Designation	Values	Description	
Send object 1	No yes	Use first object during this step?	
Telegram ¹⁵	<i>With object type = switching 1 bit</i>		
	ON OFF INVERT	Send switch-on command Send switch-off command Invert current state (ON-OFF-ON etc.)	
	<i>With object type = priority 2 bit</i>		
	inactive ON OFF	Function	Value
		Priority inactive (no control)	0 (00 _{bin})
		Priority ON (control: enable, on)	3 (11 _{bin})
		Priority OFF (control: disable, off)	2 (10 _{bin})
	<i>With object type = value 0-255</i>		
	0-255	Any value between 0 and 255 can be sent.	
	<i>With object type = percentage value</i> 1 byte		
	0-100 %	Any percentage value between 0 and 100% can be sent.	
	<i>With object type = 2 byte floating-point number</i>		
	-670760...670760 Default: 0	Any value between -670760 and 670760 can be sent.	
	<i>With object type = 4 byte floating-point number</i>		
-1E+38.. 1E+38 Default: 0	Any value between -1E+38 and 1E+38 can be sent. Input format: The ETS only allows the input as a decimal without power. Example: 15234825.123456		
<i>With object type = HVAC</i>			
Auto Comfort Standby Temperature reduction at night Frost/heat protection	HVAC operating mode.		
<i>With object type = scenes</i>			
1-64	Scene number for call-up or save telegram.		

¹⁵ or RGB, RGBW colour value.

Designation	Values	Description
	<i>With object type = colour temperature</i>	DPT 7.600 (2 bytes)
	<i>1000-10000 K</i>	Colour temperature.
	<i>With object type = RGB colour</i>	
	<i>RGB colour value</i>	The colour can be selected directly via the Color Picker. The colour value is additionally displayed as a 6 byte hexadecimal value.
	<i>With object type = RGBW colour</i>	
	<i>RGBW colour value</i>	The colour can be selected directly via the Color Picker. The colour value is additionally displayed as a 6 byte hexadecimal value.
	<i>White level</i>	The white level is entered separately.
	<i>With object type = XY colour</i>	
	<i>X colour value 0-1</i>	Input of XY components
	<i>Y colour value 0-1</i>	
	<i>Brightness 0-100%</i>	The brightness is entered separately.
<i>Send object 2</i>	See object 1	Use second object during this step?
<i>Telegram</i>	See object 1	
<i>Send object 3</i>	See object 1	Use third object during this step?
<i>Telegram</i>	See object 1	
<i>Send object 4</i>	See object 1	Use fourth object during this step?
<i>Telegram</i>	See object 1	
<i>Advance to next step¹⁶</i>		
<i>Time unit</i>	Seconds <i>Minutes</i>	Unit for waiting time.
<i>Time interval for advancing</i>	<i>1..120 secs/min</i>	Waiting time before the next step is executed.

¹⁶ If *Advancing the sequence = time-controlled*.
In step 4 only available if the sequence is automatically restarted.
See parameter page **Sequence**.

5.6.5 LED parameter page

The button LED can be controlled either internally or by an external object.

5.6.5.1 Control LED internally

Designation	Values	Description
<i>Control LED externally via object</i>	No	The button LED is only controlled internally.
	<i>yes</i>	The LED is controlled via an object.
<i>LED function</i>	<i>Always OFF</i>	The LED always remains off.
	<i>Always ON</i>	The LED is permanently lit.
	<i>Status display¹⁷</i>	The LED indicates the status of the output object.
	<i>Actuation indicator</i>	The LED lights up when the button is pressed.
<i>Switch off LED after</i>	<i>1..10 s</i>	With actuation indication and parameter selection: <i>LED on for configured time.</i>

Parameter for actuation indicator

Designation	Values	Description
<i>Colour</i>	<i>Green, yellow, orange Red, cyan, blue Purple, pink, white</i>	Associated LED colour.

¹⁷ Setting not available with *configuration options = blinds or colours*

Parameters for status display for switching, percentage, value and floating-point number


Designation	Values	Description
<i>State at object value 1 or >0 ¹⁸</i>	<i>LED off LED on LED on for configured time LED flashing LED pulsing</i>	LED behaviour if the object value = 1 or greater than 0.
<i>Colour</i>	<i>Green, yellow, orange Red, cyan, blue Purple, pink, white</i>	Associated LED colour.
<i>State at object value 0</i>	<i>LED off LED on LED on for configured time LED flashing LED pulsing</i>	LED behaviour if the object value = 0.
<i>Colour</i>	<i>Green, yellow, orange Red, cyan, blue Purple, pink, white</i>	Associated LED colour.

 The LED responds to button object 1.

¹⁸ Depending on the telegram type of the first button object.

Parameters for status display with priority

Designation	Values	Description
<i>State with priority ON</i>	<i>LED off LED on LED on for configured time LED flashing LED pulsing</i>	LED behaviour for this priority
<i>Colour</i>	<i>Green, yellow, orange Red, cyan, blue Purple, pink, white</i>	Associated LED colour.
<i>State with priority OFF</i>	<i>LED off LED on LED on for configured time LED flashing LED pulsing</i>	LED behaviour for this priority
<i>Colour</i>	<i>Green, yellow, orange Red, cyan, blue Purple, pink, white</i>	Associated LED colour.
<i>State with priority not active</i>	<i>LED off LED on LED on for configured time LED flashing LED pulsing</i>	LED behaviour for this priority
<i>Colour</i>	<i>Green, yellow, orange Red, cyan, blue Purple, pink, white</i>	Associated LED colour.

 The LED responds to button object 1.

Parameters for status display with HVAC operating modes

Designation	Values	Description
<i>State with auto operating mode</i>	<i>LED off LED on LED on for configured time LED flashing LED pulsing</i>	LED behaviour for this operating mode
<i>Colour</i>	<i>Green, yellow, orange Red, cyan, blue Purple, pink, white</i>	Associated LED colour.
<i>State with comfort operating mode</i>	<i>LED off LED on LED on for configured time LED flashing LED pulsing</i>	LED behaviour for this operating mode
<i>Colour</i>	<i>Green, yellow, orange Red, cyan, blue Purple, pink, white</i>	Associated LED colour.
<i>State with standby operating mode</i>	<i>LED off LED on LED on for configured time LED flashing LED pulsing</i>	LED behaviour for this operating mode
<i>Colour</i>	<i>Green, yellow, orange Red, cyan, blue Purple, pink, white</i>	Associated LED colour.
<i>State with Eco operating mode</i>	<i>LED off LED on LED on for configured time LED flashing LED pulsing</i>	LED behaviour for this operating mode
<i>Colour</i>	<i>Green, yellow, orange Red, cyan, blue Purple, pink, white</i>	Associated LED colour.
<i>State with frost/heat protection operating mode</i>	<i>LED off LED on LED on for configured time LED flashing LED pulsing</i>	LED behaviour for this operating mode
<i>Colour</i>	<i>Green, yellow, orange Red, cyan, blue Purple, pink, white</i>	Associated LED colour.

 The LED responds to button object 1.

Parameters for status display with sequence

An LED colour can be assigned to each sequence step.

Designation	Values	Description
Step 1		
<i>Colour</i>	<i>Green, yellow, orange</i> Red , cyan, blue <i>Purple, pink, white</i>	Associated LED colour.
Step 2		
<i>Colour</i>	<i>Green, yellow, orange</i> <i>Red, cyan, blue</i> <i>Purple, pink, white</i>	Associated LED colour.
Step 3		
<i>Colour</i>	<i>Green, yellow, orange</i> <i>Red, cyan, blue</i> <i>Purple, pink, white</i>	Associated LED colour.
Step 4		
<i>Colour</i>	Green , yellow, orange <i>Red, cyan, blue</i> <i>Purple, pink, white</i>	Associated LED colour.

5.6.5.2 Control LED externally via object

Designation	Values	Description
<i>Control LED externally via object</i>	<i>No</i> <i>yes</i>	The button LED is only controlled internally. The LED is controlled via an object.
<i>Object type</i>	<i>1 bit</i> <i>1 byte 0-100%</i> <i>1 byte 0-255</i> <i>2 bytes DPT 9.x</i>	Type of telegram for controlling the LED.
<i>Switch off LED after</i>	<i>1..10 s</i>	With parameter selection: <i>LED on for configured time.</i>

Parameter with object type = 1 bit

Designation	Values	Description
<i>State at object value 1</i>	<i>LED off</i> <i>LED on</i> <i>LED on for configured time</i> <i>LED flashing</i> <i>LED pulsing</i>	LED behaviour if the object value = 1 or greater than 0.
<i>Colour</i>	<i>Green, yellow, orange</i> <i>Red, cyan, blue</i> <i>Purple, pink, white</i>	Associated LED colour.
<i>State at object value 0</i>	<i>LED off</i> <i>LED on</i> <i>LED on for configured time</i> <i>LED flashing</i> <i>LED pulsing</i>	LED behaviour if the object value = 0.
<i>Colour</i>	<i>Green, yellow, orange</i> <i>Red, cyan, blue</i> <i>Purple, pink, white</i>	Associated LED colour.

Parameter with object type = 1 byte or 2 byte.

Designation	Values	Description
<i>Threshold</i>	With 1 byte 0-100%	
	<i>0..100%</i>	Threshold for switching the LED on and off.
	With 1 byte 0-255	
	<i>0..255</i>	Threshold for switching the LED on and off.
	With 2 bytes DPT 9.x	
	<i>-670760..670760</i>	Threshold for switching the LED on and off.
<i>State if threshold is exceeded</i>	<i>LED off LED on LED on for configured time LED flashing LED pulsing</i>	LED behaviour if the object value is greater than the set threshold.
<i>Colour</i>	<i>Green, yellow, orange Red, cyan, blue Purple, pink, white</i>	Associated LED colour.
<i>State if threshold is underrun</i>	<i>LED off LED on LED on for configured time LED flashing LED pulsing</i>	LED behaviour if the object value is smaller than the set threshold.
<i>Colour</i>	<i>Green, yellow, orange Red, cyan, blue Purple, pink, white</i>	Associated LED colour.

6 Typical applications

i These application examples are designed to aid planning and are not to be considered an exhaustive list. They can be extended and updated as required.
Standard or customer-defined parameter settings apply for the parameters not listed here.

6.1 Switching light

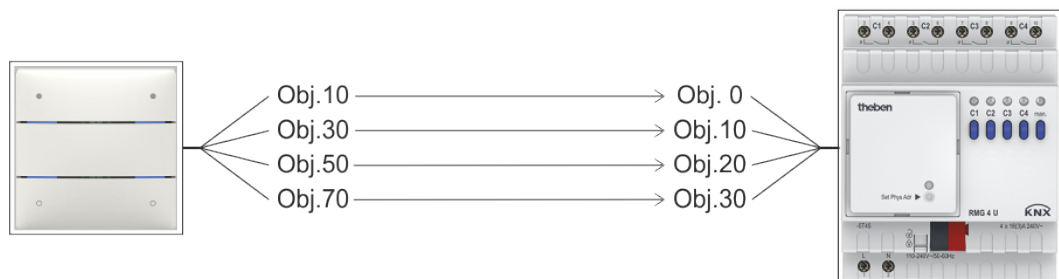
iON 104 controls the switch actuator RMG 4 U.

All 4 channels are used.

6.1.1 Devices

- iON 104 (4969234)
- RMG 4 U (4930223)

6.1.2 Overview



6.1.3 Objects and links

Links

No.	iON 104 Object name	No.	RMG 4 U Object name	Comment
10	<i>Button T1 switching</i>	0	<i>RMG 4 U channel C1</i>	iON 104 sends switch commands to RMG 4 U
30	<i>Button T2 switching</i>	10	<i>RMG 4 U channel C2</i>	
50	<i>Button T3 switching</i>	20	<i>RMG 4 U channel C3</i>	
70	<i>Button T4 switching</i>	30	<i>RMG 4 U channel C4</i>	

6.1.4 Important parameter settings

iON 104

Parameter page	Parameter	Setting
<i>Button T1</i>	<i>Function</i>	<i>Button</i>
<i>Button object 1</i>	<i>Object type</i>	<i>Switching</i>
	<i>Send after short operation</i>	<i>Send telegram</i>
	<i>Telegram</i>	<i>Change over</i>

RMG 4 U

Parameter page	Parameter	Setting
<i>RMG 4 U channel C1... C4:</i>	<i>Button function</i>	<i>Switching On/Off</i>
<i>Configuration options</i>	<i>Activation of function via</i>	<i>Switch object</i>

6.2 2 lighting groups dimming (one button operation)

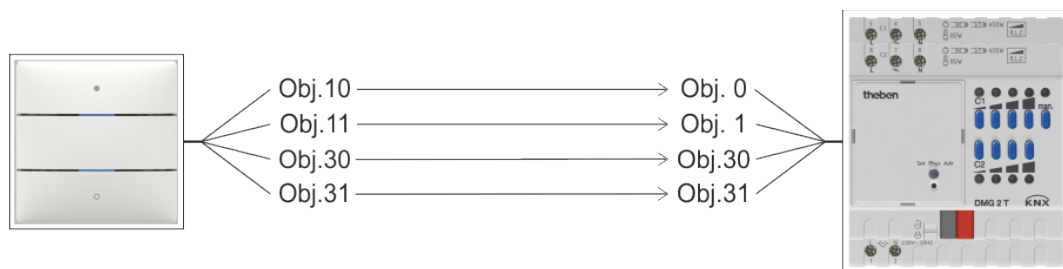
iON 102 controls both channels of dimming actuator DMG 2 T.
Only one button is used per lighting group (dimming actuator channel).

One short button push switches the light on or off.
With a long button push the brightness changes.
When the button is pressed again, the dimming direction changes (brighter/darker).

6.2.1 Devices

- iON 102 (4969232)
- DMG 2 T (4930270)

6.2.2 Overview



6.2.3 Objects and links

Table 15: Links

No.	iON 102 Object name	No.	DMG 2 T Object name	Comment
10	Button T1 Switching	0	DMG 2 T channel 1 Switching On/Off	Long button push for brighter/darker dimming commands.
11	Button T1 Brighter/darker	1	DMG 2 T channel 1 Brighter/darker	
30	Button T2 Switching	30	DMG 2 T channel 2 Switching On/Off	Short button push for On/Off commands.
31	Button T2 Brighter/darker	31	DMG 2 T channel 2 Brighter/darker	

6.2.4 Important parameter settings

iON 102

Parameter page	Parameter	Setting
<i>Button T1, T2</i>	<i>Button function</i>	Dimming
<i>Dimming</i>	<i>Response to long/short</i>	One button operation

DMG 2 T

Parameter page	Parameter	Setting
<i>Dimming response</i>	<i>Switching on/off with a 4-bit Telegram</i>	<i>no</i>

6.3 2 lighting groups dimming (2 rocker buttons)

iON 104 controls both channels of dimming actuator DMG 2 T.
 2 buttons are used per lighting group (dimming actuator channel).

One short button push switches the light on or off.
 With a long button push the brightness changes.

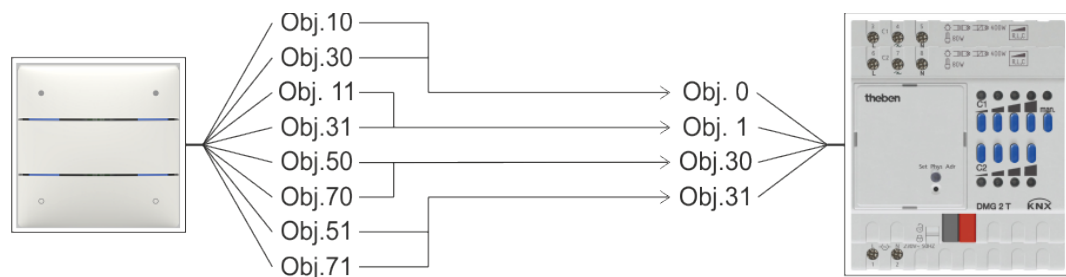
- left button → brighter
- right button → darker

i One rocker button, i.e. 2 buttons are used for each lighting group.
 The left and right button of a rocker button send the telegrams to the dimming actuator via a common group address.

6.3.1 Devices

- iON 104 (4969234)
- DMG 2 T (4930270)

6.3.2 Overview



6.3.3 Objects and links

Links

No.	iON 104	No.	DMG 2 T	Comment
	Object name		Object name	
10	<i>Button T1 Switching</i>	0	<i>DMG 2 T Channel C1 Switching On/Off</i>	First lighting group: Sends On/Off commands to the dimming actuator with a short button push,
30	<i>Button T2 Switching</i>			
11	<i>Button T1 Brighter</i>	1	<i>DMG 2 T Channel C1 Brighter/darker</i>	Sends brighter/darker commands to the dimming actuator with a long button push.
31	<i>Button T2 Darker</i>			
50	<i>Button T3 Switching</i>	30	<i>DMG 2 T Channel C2 Switching On/Off</i>	Second lighting group: Sends On/Off commands to the dimming actuator with a short button push,
70	<i>Button T4 Switching</i>			
51	<i>Button T3 Brighter</i>	31	<i>DMG 2 T Channel C2 Brighter/darker</i>	Sends brighter/darker commands to the dimming actuator with a long button push.
71	<i>Button T4 Darker</i>			

6.3.4 Important parameter settings

iON 104

Parameter page	Parameter	Setting
<i>Button T1 (2,3,4)</i>	<i>Button function</i>	Dimming
<i>(Button T1) dimming</i>	<i>Response to long/short</i>	Brighter/On ¹⁹
<i>(Button T2) dimming</i>	<i>Response to long/short</i>	Darker/Off ²⁰
<i>(Button T3) dimming</i>	<i>Response to long/short</i>	Brighter/On ²¹
<i>(Button T4) dimming</i>	<i>Response to long/short</i>	Darker/Off ²²

DMG 2 T

Parameter page	Parameter	Setting
<i>Dimming response</i>	<i>Switching on/off with a 4-bit Telegram</i>	no

¹⁹ Brighter/change over is also possible.

²⁰ Darker/change over is also possible.

²¹ Brighter/change over is also possible.

²² Darker/change over is also possible.

6.4 Controlling 4 blinds or blind groups

iON 104 controls the blind actuator JMG 4 T.

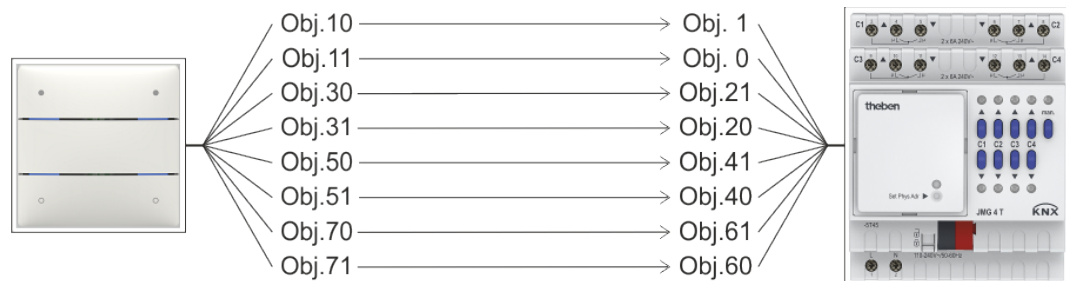
A long button push raises or lowers the blinds.

A short button push triggers the step/stop function.

6.4.1 Devices

- iON 104 (4969234)
- JMG 4 T (4930250)

6.4.2 Overview



6.4.3 Objects and links

Links

No.	iON 104 Object name	No.	JMG 4 T Object name	Comment	
10	<i>Button T1 Step / stop</i>	1	<i>JMG 4 T C1 Step / stop</i>	Long button push for Up/down operating commands.	
11	<i>Button T1 Up / down</i>	0	<i>JMG 4 T C1 Up / down</i>		
30	<i>Button T2 Step / stop</i>	21	<i>JMG 4 T C2 Step / stop</i>		
31	<i>Button T2 Up / down</i>	20	<i>JMG 4 T C2 Up / down</i>		
50	<i>Button T3 Step / stop</i>	41	<i>JMG 4 T C3 Step / stop</i>		Short button push for Step/stop commands.
51	<i>Button T3 Up / down</i>	40	<i>JMG 4 T C3 Up / down</i>		
70	<i>Button T4 Step / stop</i>	61	<i>JMG 4 T C4 Step / stop</i>		
71	<i>Button T4 Up / down</i>	60	<i>JMG 4 T C4 Up / down</i>		

6.4.4 Important parameter settings

iON 104

Parameter page	Parameter	Setting
<i>Button T1 (2,3,4)</i>	<i>Function</i>	Blinds
<i>Blinds</i>	<i>Operation</i>	One button operation

JMG 4 T

Parameter page	Parameter	Setting
<i>JMG 4 JMG 4 T</i>	<i>Type of hanging</i>	Blinds